WHAT IS CLAIMED IS:

1. A piezoelectric oscillator comprising:

a piezoelectric element to be excited at a predetermined frequency; and

an ECL circuit for exciting said piezoelectric element by supplying current to said piezoelectric element;

wherein:

a non-inverted output terminal of said ECL circuit is grouned via a capatiror, and is connected to a non-inverting input terminal of said ECL circuit via series-connected capacitors;

said non-inverting input terminal of said ECL circuit is connected via a resistor to an inverting input terminal of said ECL circuit, and is grounded via a capacitor; and

the connection point of said series-connected capacitors is grounded via said piezoelectric element and a frequency control element.

2. A piezoelectric oscillator comprising:

a piezoelectric element to be excited at a predetermined frequency; and

an ECL circuit for exciting said piezoelectric element by supplying current to said piezoelectric element;

wherein:

an inverted output terminal of said ECL circuit is grouned via a capatiror, and is connected to an inverting input terminal of said ECL circuit via a capacitor;

said inverting input terminal of said ECL circuit is connected via a resistor to a non-inverting input terminal of said ECL circuit, and is grounded via a capacitor; and

said inverting input terminal of said ECL circuit is grounded via said piezoelectric element and a frequency control element.

3. The piezoelectric oscillator of claim 1, wherein said series-connected capacitors, which are connected to the non-inverting and inverting input terminals of said ECL circuit, respectively, are each to set a negative resistance value of said piezoelectric oscillator.